same region and the patient became rational. The two subsequent examinations of the blood show a very rapid fall in urea nitrogen from 144 mg., and creatinin 6.5 mg. to 54 mg. and 1.5 mg., respectively.

The criticism may be offered that a bi-lateral pyelogram should not have been made, but this is the established practice at many hospitals and has been my custom during the last year, with no untoward results.

The autopsy showed the right kidney to be normal, and a diffuse nephritis with hemorrhage and a small urate calculus in the pelvis of the left kidney. There was no evidence of injury to the kidney pelves from the injection, so we are at a loss to explain the uremia. The patient's death was due to carcinoma, metastasis in the liver and the mediastinal glands, with its primary focus not definitely determined.

I wish to acknowledge the assistance of J. P. Kerby, roentgenologist, and H. R. Welch, intern at Holy Cross Hospital.

ACUTE LYMPHATIC LEUKEMIA

REPORT OF A CASE WITH AUTOPSY FINDINGS

JOHN J. TOBINSKI, M. D., *Los Angeles*

History—Male, age 35 years. Family history negative. Usual diseases of childhood. No other serious illness except a duodenal ulcer, for which a gastro-enterostomy was performed in 1914 with uneventful recovery.

Present Complaint — Onset January 14, with chills, fever, and general aching sensation all over body, accompanied by some localized pain under the left rib margin in the hypochondriac region. Temperature, 102; pulse, 100. Examination revealed tenderness of entire left rib margin from the xyphoid cartilage to the lumbar spine. Pain was increased by respiration. A slight friction rub was noticed from the seventh to the ninth rib along the left sternal margin. Further examination was negative except for a slight glandular enlargement throughout, and slight abdominal distention. The skin was sallow.

From January 14 to January 21 there was no change in the patient's condition, except an increased restlessness. Diagnosis on this date was "diaphragmatic pleurisy."

January 21—Patient admitted to hospital; temperature, 99; p. m. temperature, 100; pulse, 112.

A slight swelling was noticed in the left hypochondriac region; radiologic report negative.

January 22—A definite tumor-like mass about 5 cm. in diameter was palpated in the left hypochondriac region; Widal and examination for malarial parasites were both negative.

January 23—Red blood cells, 3,500,000; leukocytes, 364,000; myeloblasts, 72 per cent; small lymphocytes, 15 per cent; polymorphonuclears, 12 per cent; eosinophiles, 3 per cent. No basophiles or nucleated red cells.

January 24—The abdomen more distended. The splenic enlargement had increased, and the axillary glands a little more swollen. The patient complained of difficulty in breathing and some headache, with increased restlessness. He refused nourishment. Red blood cells, 3,200,000; leukocytes, 320,000; hemoglobin, 45 per cent (Dare); myeloblasts, 78 per cent; polymorphonuclears, 12 per cent; small lymphocytes, 8 per cent; and eosinophiles, 2 per cent.

January 25—Patient had a fairly comfortable day. Slept at intervals. The pain in the left side continued. X-ray treatment over spleen and long bones commenced.

January 26—Patient was somewhat irrational, slightly cyanosed, and complained of severe pain in the left side. Red cells, 3,000,000; leukocytes, 297,000; myeloblasts, 70 per cent; polymorphonuclears, 16 per cent; small lymphocytes, 7 per cent; eosinophiles, 5 per cent; basophiles, 2 per cent; hemoglobin, 35 per cent. A few microblasts were found.

January 27—Condition more impossible; extensive cyanosis; pulse rapid and thready; extreme restlessness, with profuse diaphoresis. Red blood cells, 2,900,000; leukocytes, 308,000; myeloblasts, 62 per cent; polymorphonuclears, 14 per cent; small lymphocytes, 20 per cent; eosinophiles, 4 per cent, and a few normoblasts; hemoglobin, 25 per cent.

January 29—Patient markedly delirious. At times unconscious. The cell count showed 293,000 white; 2,200,000 red; myeloblasts, 73 per cent; polymorphonuclears, 32 per cent; small lymphocytes, 5 per cent; no eosinophiles. Normoblasts increased with a few basophiles. Hemoglobin, 25 per cent.

January 30—Patient expired at 2.25 a. m.

Necropsy Notes — No adenitis. Muscle tissue red in color. Liver extends 8.5 cm. below tip of ensiform cartilage and to 10 cm. below costal margin right nipple line, to cartilaginous attachments of sixth rib on the left side; shows fatty degeneration; measures 25 x 21 x 12 cm.; weight, 2500 to 3000 gms.

Spleen, adherent to adnexa, measures 20 x 12 x 11 cm.; weight, 4½ pounds. Capsule adherent; substance cuts without resistance; outer portion hemorrhagic to a depth of 5 cm.; remainder of substance grayish-white, with prominent Malphighian bodies. Pericardial sac contains about 90 cc. of clean straw-colored fluid; left auricle and ventricle contracted; right auricle and ventricle relaxed. Muscular wall of left ventricle, 1.8 cm., and right 0.6 cm. in thickness. Weight, about 300 gms. No sclerosis of coronary arteries. Post-mortem clot in right auricle and ventricle. Peribronchial glands enlarged; anthracosis marked; hypostatic congestion of left lower lobe. Thymus persistent. Right suprarenal of normal size; left, twice the size of right, with considerable congestion and petechial hemorrhages into medullary portion and cortex.

Kidneys—Cortices thickened; pyramids enlarged; multiple punctate hemorrhages into surface areas. No apparent structural change in the pancreas.

Anatomic Diagnosis—Acute splenic leukemia.

Summary—This case presents interesting phases, evidenced in: 1. Sudden onset, the patient having been previously well. 2. Symptoms were referable to the spleen; diagnosis was made by blood count. 3. Duration of illness very short; only two weeks from onset to death. 4. Daily intensification of the disease, as evidenced by the changing blood picture. 5. X-ray therapy of no avail, because the disease was progressing too rapidly. 6. Necropsy picture much like that of an acute infectious disease.

515 Westlake Professional Building.

The high mortality of acute obstruction of the small bowel is due to delay in operating. In primary cases this delay is due to doubt as to the diagnosis on the part of the practitioner; and this doubt is traceable, almost solely, to the defective (or entire absence of) description of the early stage symptoms found in the textbooks of medicine and surgery in use by students and practitioners. 2. The three symptoms—pain, vomiting, and constipation—verified by the enema test, alone, warrant a diagnosis of some form of obstruction. 3. It should be emphasized that stercoraceous vomiting, distention, rapid feeble pulse, and symptoms of collapse belong not to the early stage, but to the late moribund stage of intestinal obstruction; and that the welfare of the patient demands that a diagnosis should be made before the appearance of these symptoms. 4. Some decrease in mortality will follow from improvements in therapeutic methods, especially the more frequent use of enterostomy in the secondary and in the late primary cases, but a large decrease can only come from earlier diagnosis and operation.—James McKenty (Canadian Medical Association Journal).

No man, of course, should attempt medicine unless he is willing to have troubles brought to him, be bothered, and hear tales of woe, for every patient has one. I can scarcely believe that the same sense of responsibility can be felt by the individual physician in a group system, when a patient reaches his domain in making his medical journey, as is undertaken when a patient is assigned to some physician who, with the joint action of such associates as he may choose, undertakes to find out what is wrong with the patient and set him straight.—Hugh Auchincloss (Journal A. M. A.).